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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/668,938	09/25/2000	Volker Rasche	PHD99.130US	2720

7590 12/13/2001

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EXAMINER

KAO, CHIH-CHENG G

ART UNIT	PAPER NUMBER
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2882

DATE MAILED: 12/13/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/668,938

Applicant(s)

RASCHE ET AL.

Examiner

Chih-Cheng Glen Kao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6. 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-5, 7, and 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoshitome (US Patent 5,751,782). Yoshitome discloses a method and device for acquiring a three-dimensional image data set of a periodically moving organ by means of an x-ray device including a source and detector (Fig. 1), a motion signal, such as an electrocardiogram, acquired simultaneously with the acquisition of projection data sets from different x-ray positions during the low-motion phase of the body organ (Fig. 1, #16, and Figs. 2-4), characterized in that only projection data acquired during the same low-motion phases are selected and used (Fig. 2), in that x-ray positions are successively occupied (Fig. 1, #13 and 14), in that a plurality of x-ray cycles are completed (Fig. 2, "(d)"), in that the x-ray device is controlled to start in a different phase of motion of the organ (Fig. 4), and in that the x-ray device is switched on so as to acquire projection data exclusively during low-motion phases (Fig. 4). Note that reference characters to the drawings are not given patentable weight.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 6, 8, 9, 11, 15, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshitome as applied to claims 1, 7, and 12 above, and further in view of Van Horn et al. (US Patent 3,871,360). Yoshitome discloses a method and device as recited above. However, Yoshitome does not specifically disclose a method and means for a respiratory motion signal, such as a resistance measuring device, to ensure that data is acquired during the same motion phase and used to correct data acquired in different respiratory motion phases from individual, selected x-ray positions.

Van Horn et al. teaches a method and means for a respiratory motion signal (Abstract), such as a resistance measuring device (col. 2, lines 51-69) to ensure that data is acquired during the same motion phase (col. 1, lines 24-30 and 43-53) and used to correct data acquired in different respiratory motion phases from individual, selected x-ray positions (col. 5, lines 48-54).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to have the respiratory adaptations of Van Horn et al. with the method and device of Yoshitome, since one would be motivated to obtain images or measurements that are not blurred by heart or lung motion as shown by Van Horn et al. (col. 1, lines 24-29).

3. Claims 10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshitome in view of Van Horn et al. as applied to claims 6, and 15 above, and further in view of Fujita (US Patent 5,482,042). Yoshitome in view of Van Horn et al. suggests a method and

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device as recited above. However, Yoshitome does not specifically disclose a respiratory motion signal to inform the patient.

Fujita teaches a respiratory motion signal to inform the patient (Fig. 2).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to have the respiratory signal for the patient of Fujita with the method and device of Yoshitome in view of Van Horn et al., since one would be motivated to have better user control for respiration to time data acquisition relative to breathing as shown by Fujita (col. 7, lines 33-67 and col. 8, lines 1-2).

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chih-Cheng Glen Kao whose telephone number is (703) 605-5298. The examiner can normally be reached on M - Th (8 am to 5 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (703) 305-3492. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



gk
December 6, 2001



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